

**IN THE CLAIMS**

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

CLAIMS

1. (Currently Amended) A method for making, in an electronic article surveillance system, an alarm decision, the article surveillance system being configured to emit, in transmission pulses, an electromagnetic field and being configured to receive, between the transmission pulses, reply signals from at least one alarm label located within a surveillance zone of the article surveillance system, the method comprising:

sampling, after completed transmission of a transmission pulse, a received reply signal;

identifying zero crossings of the sampled reply signal;

determining agreement between phase positions of the zero crossings and corresponding phase positions of zero crossings of a reply signal, received and sampled after a previously emitted transmission pulse; and

making an alarm decision on the basis of the degree of agreement in phase position.

2. (Currently Amended) A method as claimed in claim 1, wherein said previously emitted transmission pulse is the preceding transmission pulse.

3. (Currently Amended) A method as claimed in claim 1, wherein an alarm is initiated if the degree of agreement in phase position exceeds a predetermined value.

4. (Currently Amended) A method as claimed in claim 1, wherein the alarm decision is made on the basis of an additional characteristic of the received reply signal.

5. (Currently Amended) A method as claimed in claim 4, wherein the additional characteristic concerns the envelope of the received reply signal.

6. (Currently Amended) An electronic article surveillance system for making an alarm decision, the article surveillance system, in transmission of pulses, being configured to emit an electromagnetic field and between the transmission pulses, and being configured to receive reply signals from at least one alarm label located within a surveillance zone of the article surveillance system, the system comprising:

means for sampling a response signal, received after completed transmission of a transmission pulse;

means for identifying zero crossings of the sampled reply signal;

means for determining agreement between phase positions of the zero crossings and corresponding phase positions of zero crossings of a reply signal, received and sampled after a previously emitted transmission pulse; and

means for making an alarm decision on the basis of the degree of agreement in phase position.

7. (Currently Amended) An electronic article surveillance system as claimed in claim 6, wherein said previously emitted transmission pulse is the preceding transmission pulse.

8. (Currently Amended) An electronic article surveillance system as claimed in claim 6, wherein an alarm is initiated if the degree of agreement in phase position exceeds a predetermined value.

9. (Currently Amended) An electronic article surveillance system as claimed in claim 6, wherein the alarm decision is made on the basis of an additional characteristic of the received reply signal.

10. (Currently Amended) An electronic article surveillance system as claimed in claim 9, wherein the additional characteristic concerns the envelope of the received reply signal.

11. (New) A method as claimed in claim 2, wherein an alarm is initiated if the degree of agreement in phase position exceeds a predetermined value.

12. (New) A method as claimed in claim 2, wherein the alarm decision is made on the basis of an additional characteristic of the received reply signal.

13. (New) A method as claimed in claim 3, wherein the alarm decision is made on the basis of an additional characteristic of the received reply signal.

14. (New) An electronic article surveillance system as claimed in claim 7, wherein an alarm is initiated if the degree of agreement in phase position exceeds a predetermined value.

15. (New) An electronic article surveillance system as claimed in claim 7, wherein the alarm decision is made on the basis of an additional characteristic of the received reply signal.

16. (New) An electronic article surveillance system as claimed in claim 15, wherein the additional characteristic concerns the envelope of the received reply signal.